

Docket No.: Miller-Laces

PROVISIONAL APPLICATION
FOR
UNITED STATES LETTERS PATENT

Title: Lacing System Using Elastic Tie

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BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a preferred embodiment designed in accord with the teachings of the invention from projected plan view.

Figures 2 - 4 illustrate a preferred embodiment designed in accord with the teachings of the invention from projected view illustrating the lacing sequence.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In a most preferred embodiment of the inventive lacing system 10, using an elastic tie 20 illustrated in figure 1, a shoe 12, the specifics which are not important to the invention so long as otherwise operable and appropriate, has a tongue 14 as is common in the art. Tie 20 will appear to pass through the usual lacing points 16 and eyelets 18 as is known. However, at the top thereof, laces 20 will not be tied in the ordinary bow tie fashion, but will instead pass back towards the toe 13 of shoe 12, passing through retaining loops 30, 31, 32 and to a small horn or protrusion 40.

The retaining loops 30 - 32 are most preferably manufactured from a lightweight and durable material such as fabric of the type found in lacing points 16 commonly used on shoes, but other materials and compositions may be used, even to include open weaves, non-woven materials, solid or even contiguous sheet materials. In the most preferred embodiment, these retaining loops 30 - 32 may also include imprinting therein, such as logos, trademarks and the like. Retaining loops 30 - 32 are most preferably fastened at least in part to tongue 14 to help retain tongue 14 properly positioned with respect to the remainder of the upper part of shoe 12. The exact method of attachment of retaining loops 30 - 32 to tongue 14 is not critical to the invention, though in the preferred embodiment 10, one end of retaining loops 30 - 32 are sewn into tongue 14. The other end in the

preferred embodiment is snapped into tongue 14 after passing lace 20 to horn 40, though Velcro, hooks, buttons or other fasteners may similarly be used. Additionally, one end of retaining loops 30 - 32 may be anchored directly to the upper part of shoe 12 as well. Nevertheless, at least one end is preferred to be anchored to tongue 14 as aforementioned to hold tongue 14 properly.

5 Just as the method of fastening retaining loops 30 - 32 to tongue 14 is not critical to the operation of the invention, neither is the technique used to attach lacing 20 to horn 40. Horn 40 may be any of the myriad of fasteners, ranging from a simple hook component found in the common a and loop type fasteners to a button, Velcro or other known and available fasteners. The forces required therefrom are relatively minor, and so the preferred techniques that would be suitable are too great
10 to individually list herein.

Figures 2 - 4 illustrate the proper operation and sequence of lacing a shoe using the lacing system of the present invention. In accord therewith, the shoes will be passed through the laces in the ordinary, or desired, fashion using conventional techniques. Once laced, the ends of the elastic lace will be secured together using a preferably removable but secure fastener 22, thereby forming
15 elastic lace 20 into an endless loop. As can be seen in figure 2, retaining loops 30 - 32 are only affixed at one end to tongue 14. At this time, a person may choose to insert their foot into shoe 12.

Figure 3 illustrates the passing of elastic lace 20 through retaining loops 30 - 32. Figure 4 illustrates the final attachment of elastic lace 20 about horn 40, thereby securing lace 20 and tensioning it throughout the shoe properly. Either after or just previously to the attachment to horn
20 40, retaining loops 30 - 32 are fastened on the second end to tongue 14.

To remove the foot from shoe 12, a wearer merely needs to release lace 20 from horn 40 and pull gently on the sides of the shoes. This will loosen the shoe sufficiently to allow the person to remove their foot therefrom. Typically, the lace 20 will then appear as shown in figure 3, ready for

a very simple and quick reattachment when next worn.

From these figures, several additional features and options become more apparent. First of all, the preferred lacing system may be manufactured from a variety of materials, including metals, resins and plastics, ceramics, composites or even combinations of the above. The specific material
5 used may vary. A variety of designs have also been contemplated for lacing system 10, including ornamental and decorative designs and unusual lacing patterns. The materials used for a particular design may be chosen not only based upon factors such as weather resistance, durability and weight, but may also factor in the particular design. The designs may include any one or any combination of components.

10 While the foregoing details what is felt to be the preferred and additional alternative embodiments of the invention, no material limitations to the scope of the claimed invention are intended. The possible variants that would be possible from a reading of the present disclosure are too many in number for individual listings herein, though they are understood to be included in the present invention. Further, features and design alternatives that would be obvious to one of ordinary
15 skill in the art are considered to be incorporated also.